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1 CGGCAGCAAAGGAACGTGCGAACGCGTGACGCCCGACTGGCTCGCGCTCTCCCGTGC 61 CCCGGCGTCCTCCGCCCGCTCATGGCCCGGGCCGCCGCGGACGAGCGGCGCGCTGAGGCGGG 121 CCGCGTGGAGACGTGAGGCGGCCGCCGTGGCCCTCACAGTCGGCGTTTCGCCGCCTGCCC 241 TCCCAGGCCGTCCGCGCCCCTCCCTGGAGCTCGGCGGAGCGGCGGCAGCCAGGGCCGGCGG 361 GTGGAGCAGAACGTGCTGCAGCAGAGCGCGGGGGCGCAGAAGCACCAGCAGACGTTTTTGAAT 421 CAACTGAGAGAAATTACGGGGATTAATGACACCCAGATACTACAGCAAGCCTTGAAGGAT 481 AGTAATGGAAACTTGGAATTAGCAGTGGCTTTCCTTACTGCGAAGAATGCTAAGACCCCT 601 GTGGGAAGCCAAGCAGATACAAATGTGATTGATCTCACTGGAGATGATAAAGATGATCTT 661 CAGAGAACAATTGCCTTGAGTTTGGCCGAATCAAACAGGGCATTCAGGGAGACTGGAATA 721 ACTGATGAGGAACAAGCCATTAGCAGAGTTCTTGAAGCCAGTATAGCAGAGAATAAAGCA 781 TGTTTGAAGAGGACACCTACAGAAGTTTGGAGGGATTCTCGAAACCCTTATGATAGAAAA 841 AGACAGGACAAAGCTCCCGTTGGGCTAAAGAATGTTGGCAATACTTGTTGGTTTAGTGCT 901 GTTATTCAGTCATTATTTAATCTTTTGGAATTAGAAGATTAGTTCTGAATTACAAGCCT 961 CCATCAAATGCTCAAGATTTACCCCGAAACCAAAAGGAACATCGGAATTTGCCTTTTATG 1021 CGTGAGCTGAGGTATCTATTTGCACTTCTTGTTGGTACCAAAAGGAAGTATGTTGATCCA 1081 TCAAGAGCAGTTGAAATTCTTAAGGATGCTTTCAAATCAAATGACTCACAGCAGCAAGAT 1141 GTGAGTGAGTTTACACACAAATTATTAGATTGGTTAGAAGATGCCTTCCAAATGAAAGCT 1201 GAAGAGGAGACGGATGAAGAAGCCCAAAGAACCCCATGGTAGAGTTGTTCTATGGCAGA 1261 TTCCTGGCTGTGGGAGTACTTGAAGGTAAAAAATTTGAAAACACTGAAATGTTTGGTCAG 1321 TACCCACTTCAGGTCAATGGGTTCAAAGATCTGCATGAGTGCCTAGAAGCTGCAATGATT 1381 GAAGGAGAAATTGAGTCTTTACATTCAGAGAATTCAGGAAAATCAGGCCAAGAGCATTGG 1441 TTTACTGGATTACCACCTGTGTTAACATTTGANTTGTCAAGATTTGAATTTAATCAGGCA 1501 TTGGGAAGACCAGAAAAATTCACAACAAATTAGAATTTCCCCCAAGTTTTATATTTGGAC 1561 AGATACATGCACAGAAACAGAGAATAACAAGAATTAAGAGGGAAGAGATCAAGAGACTG 1621 AAAGATTACCTCACGGTATTACAACAAAGGCTAGAAAGATATTTAAGCTATGGTTCCGGT 1681 CCCAAACGATTCCCCTTGGTAGATGTTCTTCAGTATGCATTGGAATTTGCCTCAAGTAAA 1741 CCTGTTTGCACTTCTCCTGTTGACGATATTGACGCTAGTTCCCCACCTAGTGGTTCCATA 1801 CCATCACAGACATTACCAAGCACAACAGAACAACAGGGAGCCCTATCTTCAGAACTGCCA 1861 AGCACATCACCTTCATCAGTTGCTGCCATTTCATCGAGATCAGTAATACACAAACCATTT 1921 ACTCAGTCCCGGATACCTCCAGATTTGCCCATGCATCCGGCACCAAGGCACATAACGGAG 1981 GAAGAACTTTCTGTGCTGGAAAGTTGTTTACATCGCTGGAGGACAGAAATAGAAAATGAC 2041 ACCAGAGATTTGCAGGAAAGCATATCCAGAATCCATCGAACAATTGAATTAATGTACTCT 2101 GACAAATCTATGATACAAGTTCCTTATCGATTACATGCCGTTTTAGTTCACGAAGGCCAA 2221 TACAATGATATTGCTGTGACAAAATCATCATGGGAAGAGCTAGTGAGGGACTCTTTTGGT 2281 GGTTATAGAAATGCCAGTGCATACTGTTTAATGTACATAAATGATAAGGCACAGTTCCTA 2341 ATACAAGAGGAGTTTAATAAAGAAACTGGGCAGCCCCTTGTTGGTATAGAAACATTACCA 2401 CCGGATTTGAGAGATTTTGTTGAGGAAGACAACCAACGATTTGAAAAAGAACTAGAAGAA 2461 TGGGATGCACAACTTGCCCAGAAAGCTTTGCAGGAAAAGCTTTTAGCGTCTCAGAAATTG 2521 AGAGAGTCAGAGACTTCTGTGACAACAGCACAGCAGCAGGAGACCCAGAATATCTAGAG 2581 CAGCCATCAAGAAGTGATTTCTCAAAGCACTTGAAAGAAGAAACTATTCAAATAATTACC 2641 AAGGCATCACATGAGCATGAAGATAAAAGTCCTGAAACAGTTTTGCAGTCGGCAATTAAG 2701 TTGGAATATGCAAGGTTGGTTAAGTTGGCCCAAGAAGACACCCCACCAGAAACCGATTAT 2761 CGTTTACATCATGTAGTGGTCTACTTTATCCAGAACCAGGCACCAAAGAAAATTATTGAG 2821 AAAACATTACTAGAACAATTTGGAGATAGAAATTTGAGTTTTGATGAAAGGTGTCACAAC 2881 ATAATGAAAGTTGCTCAAGCCAAACTGGAAATGATAAAACCTGAAGAAGTAAACTTGGAG 2941 GAATATGAGGAGTGGCATCAGGATTATAGGAAATTCAGGGAAACAACTATGTATCTCATA

3001 ATTGGGCTAGAAAATTTTCAAAGAGAAAGTTATATAGATTCCTTGCTGTTCCTCATCTGT 3061 GCTTATCAGAATAACAAAGAACTCTTGTCTAAAGGCTTATACAGAGGACATGATGAAGAA 3121 TTGATATCACATTATAGAAGAGAATGTTTGCTAAAATTAAATGAGCAAGCCGCAGAACTC 3241 GTCCCATTTTTGCCATTATTACTGGTGGATGAAATGGAAGAAAGGATATACTAGCTGTA 3301 GAAGATATGAGAAATCGATGGTGTTCCTACCTTGGTCAAGAAATGGAACCACACCTCCAA 3361 GAAAAGCTGACAGATTTTTTGCCAAAACTGCTTGATTGTTCTATGGAGATTAAAAGTTTC 3421 CATGAGCCACCGAAGTTACCTTCATATTCCACGCATGAACTCTGTGAGCGATTTGCCCGA 3481 ATCATGTTGTCCCTCAGTCGAACTCCTGCTGATGGAAGATAAACTGCACACTTTCCCTGA 3541 ACACACTGTATAAACTCTTTTTAGTTCTTAACCCTTGCCTTCCTGTCACAGGGTTTGCTT 3601 GTTGCTGCTATAGTTTTTAACTTTTTTTTTTTTAATAACTGCAAAAGACAAAATGACTA 3661 TACAGACTTTAGTCAGACTGCAGACAATAAAGCTGAAAATCGCATGGCGCTCAGACATTT 3721 TAACCGGAACTGATGTATAATCACAAATCTAATTGATTTATTATGGCAAAACTATGCTT 3841 ATTCAGTCTGGATCCTTCCATGACTACAGCCATTTAAGTGTTCAGCACTGTGTACGATAC 

FIG.\_1B

1 MTVEQNVLQQSAAQKHQQTFLNQLREITGINDTQILQQALKDSNGNLELAVAFLTAKNAK 61 TPQQEETTYYQTALPGNDRYISVGSQADTNVIDLTGDDKDDLORTIALSLAESNRAFRET 121 GITDEEQAISRVLEASIAENKACLKRTPTEVWRDSRNPYDRKRQDKAPVGLKNVGNTCWF 181 SAVIQSLFNLLEFRRLVLNYKPPSNAQDLPRNQKEHRNLPFMRELRYLFALLVGTKRKYV 241 DPSRAVEILKDAFKSNDSQQQDVSEFTHKLLDWLEDAFQMKAEEETDEEKPKNPMVELFY 301 GRFLAVGVLEGKKFENTEMFGQYPLQVNGFKDLHECLEAAMIEGEIESLHSENSGKSGOE 361 HWFTGLPPVLTFXLSRFEFNQALGRPEKIHNKLEFPQVLYLDRYMHRNREITRIKREEIK 421 RLKDYLTVLQQRLERYLSYGSGPKRFPLVDVLQYALEFASSKPVCTSPVDDIDASSPPSG 481 SIPSQTLPSTTEQQGALSSELPSTSPSSVAAISSRSVIHKPFTOSRIPPDLPMHPAPRHT 541 TEEELSVLESCLHRWRTEIENDTRDLQESISRIHRTIELMYSDKSMIQVPYRLHAVLVHE 601 GQANAGHYWAYIFDHRESRWMKYNDIAVTKSSWEELVRDSFGGYRNASAYCLMYINDKAO 661 FLIQEEFNKETGQPLVGIETLPPDLRDFVEEDNQRFEKELEEWDAQLAQKALOEKLLASO 721 KLRESETSVTTAQAAGDPEYLEQPSRSDFSKHLKEETIQIITKASHEHEDKSPETVLOSA 781 IKLEYARLVKLAQEDTPPETDYRLHHVVVYFIQNQAPKKIIEKTLLEOFGDRNLSFDERC 841 HNIMKVAQAKLEMIKPEEVNLEEYEEWHQDYRKFRETTMYLIIGLENFQRESYIDSLLFL 901 ICAYQNNKELLSKGLYRGHDEELISHYRRECLLKLNEQAAELFESGEDREVNNGLIIMNE 961 FIVPFLPLLLVDEMEEKDILAVEDMRNRWCSYLGQEMEPHLQEKLTDFLPKLLDCSMEIK 1021 SFHEPPKLPSYSTHELCERFARIMLSLSRTPADGR

FIG.\_2

1 CGGCAGCAAAGGAACGTGCGAACGCGTGACGCCCGACTGGCTCGCGCTCTCCCGTGC 61 CCCGGCGTCCTCCGCCCGCTCATGGCCCGGGCCGCCGCGGACGAGCGGCGCTGAGGCGGG 121 CCGCGTGGAGACGTGAGGCGGCCGCGTGGCCCTCACAGTCGGCGTTTCGCCGCCTGCCC 241 TCCCAGGCCGTCCGCGCCCCTGGAGCTCGGCGGAGCGGGCAGCCAGGGCCGGCGG 361 GTGGAGCAGAACGTGCTGCAGCAGAGCGCGCGCGCAGAAGCACCAGCAGACGTTTTTGAAT 421 CAACTGAGAGAAATTACGGGGATTAATGACACCCAGATACTACAGCAAGCCTTGAAGGAT 481 AGTAATGGAAACTTGGAATTAGCAGTGGCTTTCCTTACTGCGAAGAATGCTAAGACCCCT 601 GTGGGAAGCCAAGCAGATACAAATGTGATTGATCTCACTGGAGATGATAAAGATGATCTT 661 CAGAGAACAATTGCCTTGAGTTTGGCCGAATCAAACAGGGCATTCAGGGAGACTGGAATA 721 ACTGATGAGGAACAAGCCATTAGCAGAGTTCTTGAAGCCAGTATAGCAGAGAATAAAGCA 781 TGTTTGAAGAGGACACCTACAGAAGTTTGGAGGGATTCTCGAAACCCTTATGATAGAAAA 841 AGACAGGACAAAGCTCCCGTTGGGCTAAAGAATGTTGGCAATACTTGTTGGTTTAGTGCT 901 GTTATTCAGTCATTATTTAATCTTTTGGAATTTAGAAGATTAGTTCTGAATTACAAGCCT 961 CCATCAAATGCTCAAGATTTACCCCGAAACCAAAAGGAACATCGGAATTTGCCTTTTATG 1021 CGTGAGCTGAGGTATCTATTTGCACTTCTTGTTGGTACCAAAAGGAAGTATGTTGATCCA 1081 TCAAGAGCAGTTGAAATTCTTAAGGATGCTTTCAAATCAAATGACTCACAGCAGCAAGAT 1141 GTGAGTGAGTTTACACACAAATTATTAGATTGGTTAGAAGATGCCTTCCAAATGAAAGCT 1201 GAAGAGGAGACGGATGAAGAGAAGCCCAAAGAACCCCATGGTAGAGTTGTTCTATGGCAGA 1261 TTCCTGGCTGTGGGAGTACTTGAAGGTAAAAAATTTGAAAACACTGAAATGTTTGGTCAG 1321 TACCCACTTCAGGTCAATGGGTTCAAAGATCTGCATGAGTGCCTAGAAGCTGCAATGATT 1381 GAAGGAGAAATTGAGTCTTTACATTCAGAGAATTCAGGAAAAATCAGGCCAAGAGCATTGG 1441 TTTACTGGATTACCACCTGTGTTAACATTTGANTTGTCAAGATTTGAATTTAATCAGGCA 1501 TTGGGAAGACCAGAAAAAATTCACAACAAATTAGAATTTCCCCAAGTTTTATATTTTGGAC 1561 AGATACATGCACAGAAACAGAGAATAACAAGAATTAAGAGGGAAGAGATCAAGAGACTG 1621 AAAGATTACCTCACGGTATTACAACAAAGGCTAGAAAGATATTTAAGCTATGGTTCCGGT 1681 CCCAAACGATTCCCCTTGGTAGATGTTCTTCAGTATGCATTGGAATTTGCCTCAAGTAAA 1741 CCTGTTTGCACTTCTCCTGTTGACGATATTGACGCTAGTTCCCCACCTAGTGGTTCCATA 1801 CCATCACAGACATTACCAAGCACAACAGAACAACAGGGAGCCCTATCTTCAGAACTGCCA 1861 AGCACATCACCTTCATCAGTTGCTGCCATTTCATCGAGATCAGTAATACACAAACCATTT 1921 ACTCAGTCCCGGATACCTCCAGATTTGCCCATGCATCCGGCACCAAGGCACATAACGGAG 1981 GAAGAACTTTCTGTGCTGGAAAGTTGTTTACATCGCTGGAGGACAGAAATAGAAAATGAC 2041 ACCAGAGATTTGCAGGAAAGCATATCCAGAATCCATCGAACAATTGAATTAATGTACTCT 2101 GACAAATCTATGATACAAGTTCCTTATCGATTACATGCCGTTTTAGTTCACGAAGGCCAA 2221 TACAATGATATTGCTGTGACAAAATCATCATGGGAAGAGCTAGTGAGGGACTCTTTTGGT 2281 GGTTATAGAAATGCCAGTGCATACTGTTTAATGTACATAAATGATAAGGCACAGTTCCTA 2341 ATACAAGAGGGGTTTAATAAAGAAACTGGGCAGCCCCTTGTTGGTATAGAAACATTACCA 2401 CCGGATTTGAGAGATTTTGTTGAGGAAGACAACCAACGATTTGAAAAAGAACTAGAAGAA 2461 TGGGATGCACAACTTGCCCAGAAAGCTTTGCAGGAAAAGCTTTTAGCGTCTCAGAAATTG 2521 AGAGAGTCAGAGACTTCTGTGACAACAGCACAGCAGCAGGAGACCCAGAATATCTAGAG 2581 CAGCCATCAAGAAGTGATTTCTCAAAGCACTTGAAAGAAGAAACTATTCAAATAATTACC 2641 AAGGCATCACATGAGCATGAAGATAAAAGTCCTGAAACAGTTTTGCAGTCGGCAATTAAG 2701 TTGGAATATGCAAGGTTGGTTAAGTTGGCCCAAGAAGACACCCCACCAGAAACCGATTAT 2761 CGTTTACATCATGTAGTGGTCTACTTTATCCAGAACCAGGCACCAAAGAAAATTATTGAG 2821 AAAACATTACTAGAACAATTTGGAGATAGAAATTTGAGTTTTGATGAAAGGTGTCACAAC 2881 ATAATGAAAGTTGCTCAAGCCAAACTGGAAATGATAAAACCTGAAGAAGTAAACTTGGAG 2941 GAATATGAGGAGTGGCATCAGGATTATAGGAAATTCAGGGAAACAACTATGTATCTCATA

3001 ATTGGGCTAGAAAATTTTCAAAGAGAAAGTTATATAGATTCCTTGCTGTTCCTCATCTGT 3061 GCTTATCAGAATAACAAAGAACTCTTGTCTAAAGGCTTATACAGAGGACATGATGAAGAA 3121 TTGATATCACATTATAGAAGAGAATGTTTGCTAATCCTTAATTTAAAAAGGAAACAAAAAC CTATTCTTTTTTTCCTGCATTGCATTAAGAAATTAAATGAGCAAGCCGCAGAACTC 3241 GTCCCATTTTTGCCATTATTACTGGTGGATGAAATGGAAGAAAGGATATACTAGCTGTA 3301 GAAGATATGAGAAATCGATGGTGTTCCTACCTTGGTCAAGAAATGGAACCACACCTCCAA 3361 GAAAAGCTGACAGATTTTTTGCCAAAACTGCTTGATTGTTCTATGGAGATTAAAAGTTTC 3421 CATGAGCCACCGAAGTTACCTTCATATTCCACGCATGAACTCTGTGAGCGATTTGCCCGA 3481 ATCATGTTGTCCCTCAGTCGAACTCCTGCTGATGGAAGATAAACTGCACACTTTCCCTGA 3541 ACACACTGTATAAACTCTTTTTAGTTCTTAACCCTTGCCTTCCTGTCACAGGGTTTGCTT 3601 GTTGCTGCTATAGTTTTTAACTTTTTTTTTTAATAACTGCAAAAGACAAAATGACTA 3661 TACAGACTTTAGTCAGACTGCAGACAATAAAGCTGAAAATCGCATGGCGCTCAGACATTT 3721 TAACCGGAACTGATGTATAATCACAAATCTAATTGATTTTATTATGGCAAAACTATGCTT 3781 TTGCCACCTTCCTGTTGCAGTATTACTTTGCTTTTATCTTTTCTTCTCAACAGCTTTCC 3841 ATTCAGTCTGGATCCTTCCATGACTACAGCCATTTAAGTGTTCAGCACTGTGTACGATAC 

FIG.\_3B

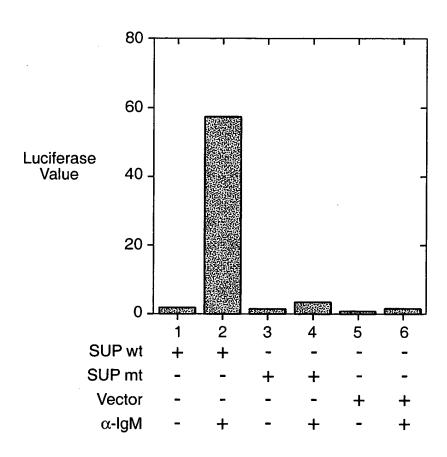
6/8

1 MTVEQNVLQQSAAQKHQQTFLNQLREITGINDTQILQQALKDSNGNLELAVAFLTAKNAK 61 TPQQEETTYYQTALPGNDRYISVGSQADTNVIDLTGDDKDDLQRTIALSLAESNRAFRET 121 GITDEEQAISRVLEASIAENKACLKRTPTEVWRDSRNPYDRKRQDKAPVGLKNVGNTCWF 181 SAVIOSLFNLLEFRRLVLNYKPPSNAQDLPRNQKEHRNLPFMRELRYLFALLVGTKRKYV 241 DPSRAVEILKDAFKSNDSQQDVSEFTHKLLDWLEDAFQMKAEEETDEEKPKNPMVELFY 301 GRFLAVGVLEGKKFENTEMFGOYPLOVNGFKDLHECLEAAMIEGEIESLHSENSGKSGOE 361 HWFTGLPPVLTFXLSRFEFNQALGRPEKIHNKLEFPQVLYLDRYMHRNREITRIKREEIK 421 RLKDYLTVLQQRLERYLSYGSGPKRFPLVDVLQYALEFASSKPVCTSPVDDIDASSPPSG 481 SIPSOTLPSTTEQQGALSSELPSTSPSSVAAISSRSVIHKPFTQSRIPPDLPMHPAPRHI 541 TEEELSVLESCLHRWRTEIENDTRDLQESISRIHRTIELMYSDKSMIQVPYRLHAVLVHE 601 GQANAGHYWAYIFDHRESRWMKYNDIAVTKSSWEELVRDSFGGYRNASAYCLMYINDKAO 661 FLIQEEFNKETGQPLVGIETLPPDLRDFVEEDNQRFEKELEEWDAQLAQKALQEKLLASQ 721 KLRESETSVTTAQAAGDPEYLEQPSRSDFSKHLKEETIQIITKASHEHEDKSPETVLOSA 781 IKLEYARLVKLAQEDTPPETDYRLHHVVVYFIQNQAPKKIIEKTLLEQFGDRNLSFDERC 841 HNIMKVAQAKLEMIKPEEVNLEEYEEWHQDYRKFRETTMYLIIGLENFORESYIDSLLFL 901 ICAYONNKELLSKGLYRGHDEELISHYRRECLLILNLKRKOKPILFFFLHCIKKLNEOAA 961 ELFESGEDREVNNGLIIMNEFIVPFLPLLLVDEMEEKDILAVEDMRNRWCSYLGOEMEPH 1021 LQEKLTDFLPKLLDCSMEIKSFHEPPKLPSYSTHELCERFARIMLSLSRTPADGR

# FIG.\_4

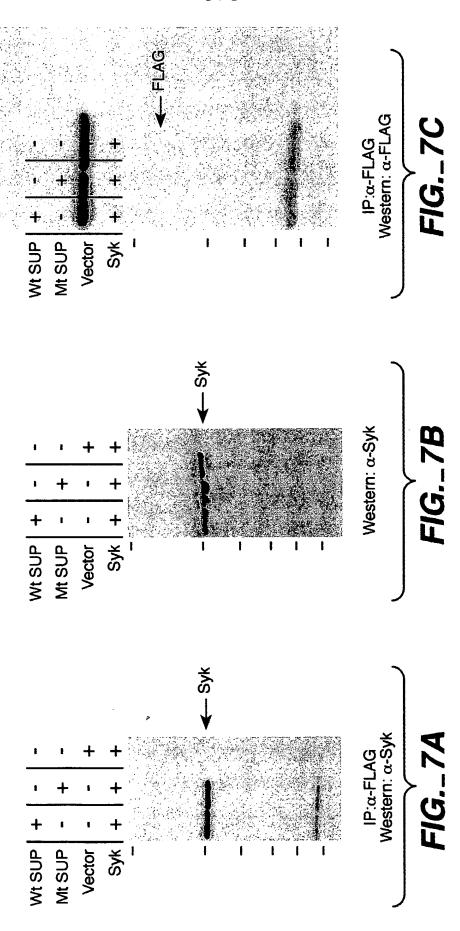
MTVEQNVLQQSAAQKHQQTFLNQLREITGINDTQILQQALKDSNGNLELAVAFLTA¹KNAK
TPQQEETTYYQTALPGNDRYISVGSQADTNVIDLTGDDKDDLQRTIALSLAESNRAFRET
GITDEEQAISRVLEASIAENKACLKRTPTEVWRDSRNPYDRKRQDKAPVGLKNVGNTCWF
SAVIQSLFNLLEFRRLVLNYKPPSNAQDLPRNQKEHRNLPFMRELRYLFALLVGTKRKYV
DPSRAVEILKDAFKSNDSQQQDVSEFTHKLLDWLEDAFQMKAEEETDEEKPKNPMVELFY
GRFLAVGVLEGKKFENTEMFGQYPLQVNGFKDLHECLEAAMIEGEIESLHSENSGKSGQE
HWFTGLPPVLTFXLSRFEFNQALGRPEKIHNKLEFPQVLYLDRYMHRNREITRIKREEIK
RLKDYLTVLQQRLERYLSYGSGPKRFPLVDVLQYALEFASSKPVCTSPVDDIDASSPPSG
SIPSQTLPSTTEQQGALSSELPSTSPSSVAAISSRSVIHKPFTQSRIPPDLPMHPAPRHI
TEEELSVLESCLHRWRTEIENDTRDLQESISRIHRTIELMYSDKSMIQVPYRLHAVLVHE
GQANAGHYWAYIFDHRESRWMKYNDIAVTKSSWEELVRDSFGGYRNASAYCLMYINDK²AQ
FLIQEEFNKETGQPLVGIETLPPDLRDFVEEDNQRFEKELEEWDAQLAQKALQEKLLASQ
KLRESETSVTTAQAAGDPEYLEQPSRSDFSKHLKEETIQIITKASHEHEDKSPETVLQSA
IKLEYARLVKLAQEDTPPETDYRLHHVVVYFIQNQAPKKIIEKTLLEQFGDRNL

FIG.\_5



**FIG.\_6** 

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